# AMLT22 PHYSICAL TESTING OF LEATHER

**UNIT-1 STATISTICAL TESTING**

1.1 Basic statistical principles

1.2 Selection of sampling location for physical as well as chemical testing of leather.

1.3 Different methods and principles employed for physical testing of various leathers measurement of tensile strength, stitch tearing strength, tongue tearing strength,

1.4 Modulus of elasticity at specified load and elongation at break.

**UNIT-2 MEASUREMENT OF PHYSICAL PROPERTIES OF LEATHER:**

1. Tear Strength.
2. Ball Bursting Strength (Lastometer).
3. Two Dimensional Extension.
4. Shrinkage Temperature.
5. Water vapour permeability.
6. Resistance to abrasion of sole leather.
7. Grain cracking (Conical Mandrel Test) in sole leather.
8. Resistance to cracking of grain in other leathers.
9. Resistance to repeated flexing.
10. Water penetration (Kubelka Method).
11. Dynamic waterproofness testing in both sole and upper leather.
12. Non-destructive testing of leather.

**Reference Books:**


1. An Introduction to the Principles of Physical Testing of Leather- Prof. S.S. Dutta, ILTA, Kolkata.
2. Technological Controls in Leather Manufacture- S.Bangaruswami, C.L.R.I.
3. The Chemistry and Technology of Leather- O' Flaherty, Roddy, Lollar, Robert E.Krieger Publishing Co. N.Y. (1977).